

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Ron Giuntini <rong@slip.net>
Subject: [472] 20M Conditions?
Message-ID: <E0v67UF-0007ST-00@mouse.slip.net>

I am about to build a 20M Explorer II. I presently have nothing operating on that band and I wonder if anyone could report the conditions for QRP on 20. Will I be surprised one way or another? Thanks folks...

Ron KB6GK
NorCal #1718
San Francisco

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Joel Malman <malman@BBN.COM>
Subject: [467] 49'er kit for sale
Message-ID: <199609260242.WAA33433@nss2.CC.Lehigh.EDU>

QRP Folks,

My brother (who is without internet access) has asked me to offer for sale his somewhat completed 49'er. The kit includes all the parts, Rev B board and an Altoids box (which is not yet punched for key, antenna, etc.)

Price is US \$12/shipped to CONUS (Continental US). You can call/voice mail me at 617-873-3299, (or preferred) Email at malmana@bbn.com

/joel wa1qvm

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: wb5gwb@sprynet.com
Subject: [466] 80m CW: Top 10 List
Message-ID: <199609260218.TAA12596@m7.sprynet.com>

Gang,
Does anyone else have the problem of spending so much time doing email, websurfing, etc. that there's no time left for hamming? Or is it just me?

As a remedy, and since I'm psyched about EMPS coming up, I'm going to try monitoring 80m while hacking on the PC across the room. I'll try listening from 10:30 or 11:00 pm EDT/EST until whatever time I zone out. Might even try a CQ now and then. Maybe break out my left-handed bug :-)

Chuck, K5F0, asked about what freqs people will be populating on 80.
Guess I'll listen mostly around *3.560*. 80m CW has been pretty quiet lately
(except for QRN), but it's a great ragchewing band, and activity will pick up a
lot as the temps go down and the EMPS go up!

Hope to see a few of you on 3.560!

72 & 73,

Jeff

Jeff T. Casey / WB5GWB / Long Island, NY / ARCI ARRL ARS QRP-L

Okay, so my subject line oversold the message content. Since I believe in
responsible advertising, I'll take a crack at making up a Top 10 List concerning
80m CW.

The remainder of this post represents my feeble attempt at QRP humor and is
devoid of substantive content. Please PRESS DELETE NOW or proceed at your own
peril. Should you choose to continue, please take it in the light- hearted
(headed?) spirit in which it was intended. I love everyone and all facets of
this great hobby!

TOP TEN REASONS YOU SHOULD RUN QRP CW ON 3.560 MHZ:

10. Since everyone else on 80 uses an 1812 vintage bug, no one will notice the
gradual degradation of your keyer fist as you swill successive 807s.

9. As loud as it is, at least the QRN is not *intentionally* jamming you.

8. According to ARRL historians, the shortest ragchew ever recorded on 80 CW was
2 hours 19 minutes, and was interrupted by World War I.

7. You won't need a QRM filter so tight that it cuts off your circulation.

6. You will be addressed as "young feller" for the first time in years.

5. On 80 the nearest digital station camps a full 1 Khz below the QRP calling
frequency.

4. No one will notice the undesirable keying characteristics of your 3
transistor homebrew transmitter on a band full of vacuum tube finals that went
soft sometime during the Eisenhower era.

3. It's a great place to try out your latest Wouff Hong joke.

2.c. This is the band & mode that inspired the T-shirt saying "XYL SAYS SHES
LEAVING ME IF I DONT QRT RITE NW BK".

2.b. By the time you figure out how to swear/curse in Morse code, you're not mad

anymore.

2.a. Surely you can keep your *16th* harmonic out of your neighbor's channel 2!

And the *Number One* reason why you should be hanging out on 3.560 Mhz . . .

1. The 75m SSBers usually don't go down that far.

There you have it -- 12 reasons for the price of 10.

72,
Jeff

p.s. Anyone still wonder why I have no time for hamming?

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Joe Gervais <vole@primenet.com>
Subject: [452] ANNOUNCE: FYBO Winter QRP FD
Message-ID: <199609252029.NAA05013@primenet.com>

Hear Ye, Hear Ye!

Here it is folks, the formal announcement of the event which will prove once and for all that "QRP is not for Sissies." :-)
Yes, it's the FYBO (Freeze Your B_____ Off) Winter QRP Field Day, sponsored by the Arizona ScQRPions.

Just want to point out a few things first.

1) The words "winter" and "field day" may not seem compatible to some of you. You're thinking of staying home by a warm fire and listening to your Louis Armstrong collection while picking off QSO's. That's fine! But please consider just a few hours in "the field". A park, a patio on the side of ski lodge, whatever. Bring a warm coat, some hot chocolate, the spouse and kids, the dog, whatever helps make it fun and comfortable. Build a snowman to make it a multi-op station. Whatever! (Us southern Arizona types have to build our snowmen from tumbleweeds - oh the hardship!)

2) To reward those who venture into the great outdoors (or those with unheated ham shacks), we've added a temperature multiplier. Please note that this is for the temperature AT THE OPERATOR'S POSITION. Stick a thermometer by your keyer, and there you have it. Indoor operators report indoor temperature. Please be fair.

3) We've tried to benefit the Novice/Tech Plus types. One common problem is that nobody spends time in the Novice portion of the band, because there aren't enough signals there, because nobody spends time there, because.... You get the idea. :-) So, all QSOs made in the Novice sub-bands are worth extra points, regardless of who you contact. But if you actually work a Novice/Tech, you get big points. So get ahold of any Novice/Techs you know, sit 'em in front of a QRP rig, and hopefully they'll end up having the time of their lives. This is an experiment that I hope will work.

4) The key word here is FUN. To that end, and to spice things up for all, we've added a random drawing from all logs received. This way even the "little guys" with marginal antennas or rusty skills have a chance at winning something. And that something is a Ten-Tec QRP Xcvr kit, band of your choice. But logs will be cross-checked where possible, so no fair faking one if you don't participate. :-)

That's it folks. Formal rules are appended at the end (regular ASCII text - don't panic!) If you have any questions or comments, please feel free to drop us a note.

Remember, "If it ain't fun, you aren't doing it right!"

Cheers de KC7NEV,

-Joe, vole@primenet.com, AZ ScQRPions #7

----- QRP CONTEST ANNOUNCEMENT -----

FYBO (Freeze Your B____ Off) Winter QRP Field Day

Sponsored by the Arizona ScQRPions

** SAFETY FIRST! Please respect the weather and your own limitations. **

When: 1700Z Feb 22 - 0500Z Feb 23

QRP Only.

Modes: CW, Phone.

Bands: HF, standard QRP calling freqs (no WARC). For Novice portion of bands, suggest 3.710, 7.110, 21.110, 28.110.

Work stations once per band.

Exchange: RS(T), state/province/DXCC country, power output, and temperature (Fahrenheit) at OPERATOR'S POSITION. Indoor stations must report indoor temperature. Example: "RST 579 AZ 2W 58F". Novices sign with /N, Techs sign with /T.

Points:

- 5 pts/QSO with a Novice/Tech ham (i.e. contact a Novice/Tech, get 5 pts).
- 2 pts/QSO in Novice portion of bands with General class or higher ham.
- 1 pt/QSO all other.

Example: W1AW (Extra) completes QSO with KD6PRD (Novice).
W1AW gets 5 pts. KD6PRD gets 2 pts.

Multipliers:

- States/provinces/DXCC countries
- Field Location = x 4
- Alternative Power Source (battery/solar/wind/etc) = x 2
- QRPp (less than 1w) = x 2
- Lowest temperature recorded at OPERATOR'S POSITION while on the air:
 - 60+ F = x 1
 - 50-59 F = x 2
 - 40-49 F = x 3
 - 30-39 F = x 4
 - 20-29 F = x 5
 - Below 20 F = x 6

Final Score:

QSO points x Multipliers.

Awards/Prizes:

- Lowest operating temperature.
- Most Novice/Tech stations worked.
- Highest score (single op, multi op, Novice/Tech).
- Random drawing from logs received.
- Send 9x12 SASE with log for certificate.

Email vole@primenet.com for more information.

Send logs by Mar 21 to Joe Gervais (KC7NEV), PO Box 1822, Goodyear, AZ 85338.

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: "Thomas J. Whalen" <whalen@swcp.com>

Subject: [424] bare essentials xmtr

Message-ID: <Pine.SUN.3.91.960924230748.20639A-100000@kitsune.swcp.com>

Years ago when I was a Novice way back in 1968 I found an article in Popular Electronics called " The Bare Essentials Transmitter". The single 50C5 did a great job and was fun to build. Been trying to find that schematic for a long time. A few of us here in town built the xmtr and no one seems to be able to come up with a working model or plans. Tom WB5QYT

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: "rohre" <rohre@arlut.utexas.edu>

Subject: [447] CLAMP to Ground Rods!!! and more

Message-ID: <n1368467919.91794@msmailgw1.arlut.utexas.edu>

PLEASE gang,

Review the ARRL Handbook or others, or better yet, the National Electrical Code, (abstracts of which are in the Electrical do it yourself books at hardware stores.)

A big point of misinformation in the ham radio community is what is the purpose of a ground rod. It is primarily to provide a direct connection to earth for lightning, and static bleed off purposes, and ELECTRICAL SAFETY. It is a path for fault currents OTHER than through your equipment and antennas.

IF you are so lucky as to live atop a saltwater marsh, then a rod into that MAY provide you an RF ground (at some frequency, not all), but most of us live on poor RF grounds, when you measure the characteristics of the dirt on the surface and up to 8 feet down. In fact, around much of TX, if we CAN go 8 feet down, we hit even worse RF conditions than in the surface soil! In my area it is caliche, a result of the limestone type soils we have. That and rocks do not a reflector make.

The NEC says to clamp large conductors to a ground rod, or WELD it, but not solder. As others stated, the low melting point of solder will just cause a vaporization of the connection at the leader lightning stroke, and when you really need the connection most, it is gone!

Now, what about RF grounding? If you are using balanced antennas such as a dipole, you have everything you need in the antenna to launch the signal efficiently. Reflection of that LAUNCHED signal from a reflective surface (even imperfect earth), may reinforce the effect of your signal, but this is improbable help with the low antennas many of us are forced to use of the dipole type. Connection of the rig to earth is not necessary for you to radiate RF, otherwise how do your HT's work, and mobiles work?

If you are using a resonant quarter wave, base fed vertical, you are missing

half of the "standard" (dipole) antenna, and efficiency is down. NOW you do need radials , also resonant at quarter wave, to replace that missing half, and aid in efficient radiation. For even more efficiency, raise the feed point up above lossy dirt, and put counterpoises, (also elevated), from the feed point of the vertical out in each direction you wish to reach with your transmissions. Resonant wires work better than random wire for this purpose, and maximize the result for the effort. That is why it is standard to put a resonant quarter wave radial for each band, and in each major direction at least. The quarter wave counterpoise or radial is made 5% longer than the antenna quarter wavelength. An ideal ground screen would have copper conductors spaced much less than a fraction of a wavelength, and extending out from the vertical in every direction for at least a quarterwavelength.

But acid or alkaline soil conditions cause such screens and radials to deteriorate, thus requiring periodic replacement and maintenance, which is aided by the RF clamp on probe Jim Smith, from Norfolk Island, recently described in "CQ". That trade off, is to be considered against the advantage enjoyed by the verticals with radials, of favorable low angle radiation useful for DX operations. Seldom can you achieve favorable low angles from dipoles unless they are placed very high in the air, over a half wave above the "true" RF earth reflection, which may be at some elevation below the physical earth surface. The vertical allows you to better control low angle radiation, provided you follow through and install a complete antenna SYSTEM, which would be not only the vertical but an associated radial or counterpoise system.

A little used by hams, earth independent antenna, is the vertical dipole. One manufacturer has found his niche by supplying a shortened multi band version of the "Asymmetrical vertical dipole", and this has been used with much success either mounted close to the ground, or elevated above reach by children or pets, as I do with my Gap Titan model.

But back to my main topic -- the connection to the Ground rod you use should be clamped and the largest conductor should be used without sharp bends between the connection and the devices you are protecting with this ground rod connection. A solid strap of copper is better than braid, for braid can be exploded by surge currents in catastrophic strike conditions. The heating of the conductors by fault current causes expansion leading to braid failure, and some of the effect may also be the large magnetic forces associated with lightning, although copper is not a magnetic material. The purity of your metal conductor affects what may happen with abnormal conditions. Thus, a copper alloy rod is better than copper plated steel. (Most copper plated rods seem to quickly become rusted in our climate.) Driven rods are so difficult to put down in our area, that the local electric utility has found that a superior electrical ground to a shallow rod, would be to bury horizontal wire 0.1 inch diameter, and 200 feet long as a circumference to the structure to be protected. This could circle your building housing the shack, and add protection to other electrical circuits inside as well as the shack. This wire can be a foot or two down, which is generally possible here, even if it

has to detour to avoid large rock outcrops.

Safety first, and save the large mass soldering for your first beverage can vertical, (if you find steel cans.)

72, Stuart K5KVH

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Bob Hirsch <bobh@p3.net>
Subject: [450] feed line question
Message-ID: <1.5.4.32.19960925184407.006b69d0@p3.net>

Hello group;

I use balanced feeders, 450 ohm ladder line to a balanced line tuner.

What are the advantages, disadvantages, of using 300 ohm as compared to 450 ohm, or for that matter what about the 72 ohm balanced feed line? All dissertations, questions, and comments are welcome.

73 de Bob, AA30N

No Code, No HF....Know Code, Know HF!

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>
Subject: [449] Finishing QRP cases
Message-ID: <32496088.pandora@pandora.lugs.org.sg>

Hi Gang,

I just found some great stuff for finishing our own casings. Recently I've been involved in a spate of restoration work on second hand equipment and my most recent acquisition is a HP5315B 100 MHz counter.

When I got this rig, it looked like someone had used it as a football. So I started cleaning up the thing with soap and alcohol. I did as much as I could but the results were less than spectacular. This was when another ham introduced me to a car polish product called "Auto-Glyph". Man, this stuff works wonders on casings, it is almost unbelievable. You take the polish and

rub it on with a fine cloth. When you're done, you wipe it off with a clean dry cloth!

The results are amazing I must say. It leaves a shiny protective coat which is just what I want for my own rigs. Specially after you have decal-ed the set. You want to be careful of course but like I said, this stuff makes the old case look like new, newer than new in fact. Now, if you are looking for that extra "shine" on your run down homebrew casings, give car polish a shot.

I just thought some of you guys might use this information.

73 de 9V1ZV (still recovering from amazement!)

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*-----+-----+
| Daniel Wee | daniel@pandora.lugs.org.sg      |
| 9V1ZV      | danwee@singnet.com.sg                     |
| QRP-L #667 | daniel.wee@f516.n600.z6.fidonet.org |
+-----+-----+
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From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: [441] Foxhunt update es 80M
Message-ID: <199609251606.QAA24117@chuck.dallas.sgi.com>

Gang,

I had over 75 applications to be the fox. Obviously this number of extremely qualified and talented operators could not be used, thus I have selected 26 to be the fox this year. They have been sent email and are currently scrambling for time slots. So if you applied and have not gotten email then I am sorry to report that you did not make the original group at this time. It was a tough, very tough, job for me to go through the list and select. I hated to remove some very qualified applicants. I do have you down as an alternate just in case. Hopefully by Friday I can announce the complete or mostly complete schedule and the rules. Those of you new to the group since last April will found out what is in the works when I post at the end of the week. Hold on. Patience is everything here.

You know that the fox is one of the rare people in the USofA and North America that gets to generate a pileup. :-)

Someone posted that they put the rules on the web. Hmmm.
You might wanna take 'em down 'cuz they are a changing. :-)
You can put up the new ones later this week. Also I have
a question? Will this allow those not a member of QRP-L get
in on the big todo? Is that what we want? Will it generate
more QRM?

---- 80M ----

I have an NN1G SWL-80 and have had it on the air this week
in preparation for starting literally from scratch on 80M
to see just how many states I can get. In 40 years of on
the air activity I don't recall ever working over a dozen
contacts, so this should be interesting.

Some of you love and have a lot of experience on 80M. I'd
like to hear of your experiences, dos and don'ts,
Most QRPers during the sunspot lulls operate on 40M. There
must be some real dyed in the wool 80M operators out there.

I got the antenna to load up and in the 100mW position on
the Oak Hills Research WM-1 I don't get a wiggle on the
relected power position. This with (now hold on to your
807s here) 1.50W out!!! Should I lower it? Is this too much?
Is this too little? Remember this is the same rig that I
talked to CA with 50mW or so last year when I built it and
forgot to peak the transmitter. :-)

Since the QRP calling frequency is 3.560MHz and the colorburst
crystal frequency is 3.579MHz I can tune the range. I see from
the postings that the Knightlights in the Carolinas and the
East Coast (also known as the right coast to the rest of the
country) that they are up around 3.710MHz or so. Why so high?
Into the ultra-violet so to speak? The SWL-80 will not get me
up there unless I retune and I'm willing to do that, but where
are the QRPers gonna be most of the time?

Listen for the quiet one on 80M late at night. I'll be
testing this week. I discovered that the lawn sprinkler
system is ALL copper pipe when one of the old Pecan trees
decided to stress test one of the pipes. The tree won.
So I'm going to get the grounding strap and attach to the
system. Been operating the last two years without a ground
system, so we'll see what happens on 30/40/80 with one.

Oh, as a final note. No stations worked this week on 80M.
I know it is early in the season and some QRN still on.
So sometimes you can spend time on the air practicing sending

CQs and no one hears you. That's why we use the programmable keyers where all you gotta do is reach over and with the touch of a single button you're on the air. I'm really anxious to catch some of the colorburst crystal gurus on 80M. Is it better to operate after 10:30 a.m. after the neighbors have gone to bed and turned off the TV?

Inquiring minds wanna know.

SIG

Chuck Adams (K5FO CP-60) 49/49/50 adams@sgi.com

EMPS QS0s=0 STATES(w/c)=0/0 DX=0

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: Bob Edwards <rbe@atlanta.com>

Subject: [460] GATE 2 callsigns

Message-ID: <3249F7E9.C20@atlanta.com>

This is a multi-part message in MIME format.

-----3E9C707D6EAA

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Anybody know when the first wave of Gate 2 calls will hit the street ?

KI4HN/WWW says there is a rumor of at least 2 to 3 weeks.

-----3E9C707D6EAA

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Content-Disposition: inline; filename="FOOTER.TXT"

+-----+

| Bob, AE4CA, WAS-5W | "QRP", more from less....

+-----+

ARCI-8760, MIQRP-1410, COQRP-118, QRPL-606, ARS-145, NorCAL

-----3E9C707D6EAA--

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: "Michael A. Gipe" <mgipe@reliablemeters.com>

Subject: [456] Help calculate power
Message-ID: <199609252326.SAA28582@multi2.pic.net>

A little brain exercise:

I received some interesting mail in response to my last posting that started me thinking about relative power comparisons.

I already calculated that my daughter's night light is 14 dB down from my 267 mw 40-9er.

I wondered how that compares with the power of human speech. In researching the literature (footnote 1), I found that the sound pressure of 'normal' speech (not free speech, see footnote 2), measured at the lips, is generally accepted to be approximately +100db referred to 0.0002 microbar, which when you calculate it out is +20 microbars. I want to calculate speech power in order to compare it to RF transmitter power. I could not find a value for the characteristic impedance of air at sea level, however, so I am temporarily stumped. The change in characteristic impedance with altitude is another interesting topic which we shall ignore for now. (see footnote 3. see also footnote 4). Can anyone help me out? I am certain that one could derive it knowing the ambient air pressure, but I am more than a few years away from my college physics classes, and I can't find my old textbooks (footnote 5) for refreshing.

footnotes:

1. Fink, et al; Electronic Engineers' Handbook; McGraw Hill, 1975; see also: Dunn and Farnsworth, Journal of the Acoustical Society of America, 1939
2. Free speech according to the scientific definition of free speech, of course, meaning speech propagating in free space. Interesting comparisons to electromagnetic radiation come to mind here. The characteristic impedance of free space for EM fields is 120π and is very close to this for air at sea level, thus we tend to ignore the presence of air in our work. As the transport method for acoustic propagation is radically different, however, the characteristic impedance for acoustic energy for free space is consequently or coincidentally radically different than that for sea level air. By inspection, one can determine that the free space acoustic characteristic impedance is infinite. There are interesting social consequences of this fact. If one were to place Rush Limbaugh in an ideal free speech environment, he could shout infinitely loudly, but we would still not be able to hear him across the room. This applies equally well to other political viewpoints, as the content of the message does not enter into the characteristic impedance equation. In essence, then, the communications effectiveness of people such as Rush Limbaugh, Bill Clinton, etc. depends on an environment of imperfect free speech. The social and constitutional implications of this conclusion are mind-boggling!

3. As the ambient air pressure in general tends to decrease with increasing altitude, we would expect the characteristic impedance to increase (to the limit of infinity in free space). There are numerous consequences of this such as questions of impedance mismatch (and SWR) to the mouth at high elevations, differing propagation velocity, differences in propagation efficiency, etc. The latter point begs comparison to RF propagation. As we know that your station gets out better if you locate it at the top of a mountain, are we at all surprised that your family can hear you better if you jump onto the sofa and shout. Of course, this enters the realm of QRO operation, and we are getting a little off topic...

4. Tangentially speaking, one wonders about the relative power efficiencies of human speech versus CW...

5. Alonso and Finn, Fundamental University Physics, Volume I, Addison Wesley, 1967

end of footnotes.

Hope this injects a little humor into your day. And seriously, I would appreciate any insight into calculating the power or energy level of speech in air for the purpose of comparing it with radio.

Thanks,

Mike K1MG

mgipe@reliablemeters.com

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: "Frank G3YCC" <g3ycc@enterprise.net>

Subject: [444] Interested in CW?

Message-ID: <199609251707.SAA28151@mail.enterprise.net>

Check out my web page for a great link - to the UK magazine, Morsum Magnificat's site and links to other key related sites on the web.

Also some new pictures from JA land.

Regards to all.

--

Frank G3YCC (G QRP 042)

QRP Web Page:

<http://homepages.enterprise.net/g3ycc/>

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: Stan Goldstein <stan@cruzio.com>

Subject: [445] Kanga US Homepage ?
Message-ID: <324967EC.32A3@cruzio.com>

Been trying for 2 days to connect to the Kanga Hhomepage.

I have <http://ncc1701-d.cc.nd.edu/kanga/>
as the URL.

Tnx, Stan , N6ULU

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Bob Hightower <ki7mn@dancris.com>
Subject: [433] Kenwood
Message-ID: <199609251421.HAA02532@dancris.com>

I was going to post the response I got from Kenwood to the list, but someone reminded me that this is LOW POWER only. OK, if you would like to read it, e-mail me and I'll forward it to you. Otherwise I might get busted by the list cops.

73,

Bob KI7MN NorCal 1221 ARCI 8918 Qrp-l 271 CQC 274 ARRL (Not in any order of importance!)

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: "Andrew I. Combs" <jbm-dal@computek.net>
Subject: [434] Kenwood 79A Wide Band Modification
Message-ID: <32496045.164C@computek.net>

I found a Modification Guide written by Clayton Wagar, KD4IDN dated 8/21/94.

I am particularly interested in a Wide Band mod provided by Cole Cunningham (AA7RD). More specifically, this mod involves removal of diodes D304 and D307. My natural concern is have there been any negative impacts associated with this mod (assuming of course that the individual performing the mod is capable)?

In that this mod is two years old, has anyone recieved any feedback or become aware of any other mods (especially a keyboard mod that requires no physical alteration)?

I fully understand the responsibilities that come with having a radio that operates outside the amateur bands. All concerned parties can rest assure that I would not do anything that would jeopardize my or other hams privileges associated with use of the airways.

Lastly, if anyone can make suggestions of a particular party that can perform this mod competently, I would certainly appreciate it. I already have a few in mind in the Dallas, Texas area but would like to find someone who has already had some experience.

I would appreciate any comments, suggestions or otherwise on this. I can be e-mailed at "jbm-dal@compupek.net" , faxed at 214-380-6735, or voice at 214-343-9191.

Thank you for your time,

Andrew I. Combs, W5VJW

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: "Kelly Ellison" <kelman@dialnet.net>
Subject: [464] MFJ 9040 is Gone!
Message-ID: <199609260055.TAA15455@shell.dialnet.net>

The MFJ 9040 has been traded. Thanks for the inquiries.

AND, Thank you for the privilege of using the qrp-1.

-Kelly

kelman@dialnet.net

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Dick Schneider <74602.3317@compuserve.com>
Subject: [425] NC Portable Operation
Message-ID: <960925052305_74602.3317_EHH65-1@CompuServe.COM>

QRP'rs:

I'll be operating portable QRP from North Carolina later this week under the following sked:

Thurs 9/26 Charlotte 8-9 PM EDT 7040+/-
Fri 9/27 Charlotte 8-9 PM EDT 7040+/-
Sat 9/28 Blue Ridge Mtns 8-9 PM EDT 7040+/-

Station:
SW40. 1 Watt. Random Wire w/L-Circuit tuner.

72 Dick AB0CD..

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
Subject: [429] Noise--a revision
Message-ID: <Pine.SOL.3.94.960925073405.23693A-100000@utkux4.utcc.utk.edu>

In my preceding post on "noise," I should have subdivided atmospheric noise into two subcategories, the first dealing with propagated lightning spark RF, the second dealing with the loop antenna. For there is a second source of noise and antenna problems that is generated by atmosphere, but does not involve propagation.

The more molecules strike each other, the more they lose electrons and become charged. The thinner the atmosphere, as at high altitudes, the longer molecules can stay charged before recombining with lost electrons. It is from phenomena such as these that we get the static charge build-up on antennas. It was no real problem with tube grids, but a real problem with solid-state front ends. Moreover, it is an additional noise source and problem. For some antennas mounted very high, the energies involved could not be drained effectively before damage occurred to antenna elements--this is the HCJB case. For most of us, the problem is simple static charge that we can drain away. One technique is to have the antenna at DC ground. Some antenna designs are naturally this way. Loops go from the coax center to coax braid, and if the braid is well grounded, the charge does not build up. Placing an RF choke across the antenna terminals or from the terminal to a ground line and continuously drain charge build-up. Parallel feed systems can carelessly omit this protection, but a pair of RF chokes, one from each line to ground where the feedline enters the house, can protect equipment. However, remember that the impedance level at that point can be high, requiring a very high value of RF choke to ensure that significant signal energy does not go through the choke.

Please mentally insert this note just in front of the discussion that begins with folded dipoles.

-73-

LB, W4RNL

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: bob.roach@sourcebbs.com (BOB ROACH)
Subject: [442] Portable grounding
Message-ID: <8C90298.000104435A.uuout@sourcebbs.com>

Hello Everyone,

Later this year I will be spending a week in a cottage at the ocean. I have just about worked out the details for my antenna but am still not sure about getting a good ground. I will not be operating QRP (darn) so stray RF will be a consideration. The cottaage is on stilts so the operating position will be on same as the second floor of most houses and I can't be sure of metal plumbing.

Since a lot of folks here operate portable I figured this was the place to come for all the answers.

Thanks,
73 de KE4QOK
Bob

* SLMR 2.1a * Mary had a little RAM....only about a MEG or so.

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Dan Keen <70731.722@compuserve.com>
Subject: [461] Portable grounding
Message-ID: <960926003601_70731.722_EHM72-1@CompuServe.COM>

> Hello Everyone,
>
> Later this year I will be spending a week in a cottage at the ocean. I
> have just about worked out the details for my antenna but am still not
> sure about getting a good ground. I will not be operating QRP (darn) so
> stray RF will be a consideration. The cottaage is on stilts so the
> operating position will be on same as the second floor of most houses
> and I can't be sure of metal plumbing.
>

> Since a lot of folks here operate portable I figured this was the place
> to come for all the answers.
>
> Thanks,
> 73 de KE4QOK
> Bob

Well one expensive (\$50-80) way, is either the TenTec or MFJ artificial ground boxes: they're tuners that tune an insulated wire to make it a counterpoise "ground". Counterpoise stays inside the room, strung out along the floor. The TenTec is cheaper, I think.

I have the MFJ and it works fine. Has a tuning meter and sensitivity control. Hv to retune for each freq.

Dan
70731.722@compuserve.com

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: larry.kosch@tolttbbs.com
Subject: [469] print NATIONAL SW-54
Message-ID: <9609252325.0WX0F01@tolttbbs.com>

HI GANG

Just been to a hamfest and picked up a real nice NATIONAL SW-54 rec... Cabniet in real good shape...I think it is from the early 50s...Any info or a print on it would help...Needs filters and wolud be nice to have a print on it before i tare into it...Would make a good early station with a one tube xmtr...TNX for any help...LARRY K8EJU

larry.kosch@tolttbbs.com

QRP-L 364 ARCI-8012 NORCAL-939 MICH-994 LARRY-K8EJU MAUMEE,OH

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: n4so@juno.com (CHARLES K BROWN)
Subject: [423] QRP ARCI CONTEST

Message-ID: <19960924.205158.9271.0.n4so@juno.com>

QRP ARCI Fall QSO Party

sponsored by QRP ARCI, 1200z Oct 19 to 2400z Oct. 20.

Source: QST mag.. October 1996 page 101

Comments, or contest announcements go to: contest@arrl.org

Ken Brown

QTH Near Mobile, AL

QRP-L #622

n4so@juno.com

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: "Ted Kell" <tkell@nyx.net>

Subject: [443] QRP on HCJB

Message-ID: <9609251648.AA02195@nyx.net>

I get an e-mail program listing from HCJB in Quito twice a week. Here is what is on to night.

W E D N E S D A Y , S E P T E M B E R 25, 1996:

HAM RADIO TODAY: You've heard us speak of low frequencies, but what about low power operation? Join us as we give you the details about one of the fastest growing areas of the amateur radio hobby - next on HAM RADIO TODAY with John Beck as host.

(ENA-9745kHz-0130 / WNA-9745kHz-0530 / EUR-11615kHz-0800 + 15540kHz-1930 / SPA-9445kHz-0930)

72

Ted

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: Greg Weinfurtner <weinfurtner@ouvaxa.cats.ohiou.edu>

Subject: [430] QRP program on HCJB shortwave

Message-ID: <v03007801ae6ec14e636f@[132.235.72.11]>

Gang,

Got my "Andean Herald" this morning, an e-mail program note, and lo-and-behold, there was this note:

W E D N E S D A Y , S E P T E M B E R 25, 1996:

HAM RADIO TODAY: You've heard us speak of low frequencies, but what about low power operation? Join us as we give you the details about one of the fastest growing areas of the amateur radio hobby - next on HAM RADIO TODAY with John Beck as host.

(ENA-9745kHz-0130 / WNA-9745kHz-0530 / EUR-11615kHz-0800 + 15540kHz-1930 / SPA-9445kHz-0930)

*ENA= Eastern North America, etc.

*Time listed after freq is in UTC (GMT fer OT's : '>')

So fire up those ol' firebottle general coverage receivers (Geesh, if I only had my ol' NC-98 National...)and give a listen!

HCJB transmits out of Quito, Ecuador powered by their own hydro-electric power plant. They've been in operation since 1931! Did a paper on them for TCOM 468 class.

```
*****
*                               Greg Weinfurtner AEE BSS *
*      NN      N      SSSSSSS  8888888  0000000  Electronic Design Splst *
*      N N      N      S           8      8      0      0  Ohio University Athens *
*      N N      N      SSSSSSS  8888888  0      0  GO BOBCATS! *
*      N      N N           S      8      8      0      0 *
*      N      NN      SSSSSSS  8888888  0000000 *
*                               Can thou send forth lightnings *
*                               Amateur Radio that they may go and say unto *
*                               DXCC WAS EM89 thee, 'Here we are'? Job 38:35 *
*      weinfurtner@ouvaxa.cats.ohiou.edu *
*      http://ouvaxa.cats.ohiou.edu/~weinfurtner *
*****
```

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: "rohre" <rohre@arlut.utexas.edu>

Subject: [458] QRP-L members published widely
Message-ID: <n1368445722.24678@msmailgw1.arlut.utexas.edu>

It is always a pleasure to get a magazine such as "Communications Quarterly" (CQ Pub. Co.) and see a piece by L. B. Cebik of our group and now he had a QST item.

Well, before I could even get to reading that, here comes "CQ" and "73".

And "73" this month features a cover subtitle under their name:
QRP: Low Power Fun!

And under that, is "QRP Antenna Tuner, QRP Multi-band Dipole, QRP Wattmeter, and QRP Field Day", and under that is a picture of a VE6 Field Day antenna raising.

Authors of the QRP pieces that were familiar names were Marshall Emm, AA0XI, of the Colorado QRP Club Field Day experience.

Then J. Frank Brumbaugh, KB4ZGC, has "A Versatile QRP Random-Wire Antenna Tuner"

There is another tuner in the Multi Band Dipole piece!!

Jeff Gold, AC4HF, reviews the MFJ DSP this issue!

Jay Jeffery, WV8R, has "A 30m through 80m Loop, Great indoor antenna for QRP"

Michael Bryce WB8VGE, has "Desoldering"

Marshall (again) reviews "ATOMIC KEYSER...."

Frank (again) has "A Simple QRP Wattmeter/Dummy Load" with a neat idea for an expanded scale meter, ie if you want to detail the 1 to 5 watt range, he presents a one part addition to standard circuit.

Ken Gledhill, AA7PE, has "What's All This QRP Stuff", (he home brews).

And miracle of all, W2NSD actually has new editorial topics, for once, and some interesting history on ham contacts many years back.

The magazine seems pretty healthy to me with all this original material, and I hope he can keep it up. I think you will get your money's worth this month! It is nice to see both QST and 73 presenting either QRP pieces, or elisting some of the outstanding authors that happen to come from the QRP community. On the past few years, tho, "73" wins out on presenting more QRP construction pieces. Some are teasers, and could be more "elegant", but I think credit should be given to W2NSD's support of our sub-hobby. Take a look, and if you

like what they have, let them know, so they will continue to support QRP, and bring it to the Newstand audience that our clubs can not afford to reach.

By all means support the clubs and their publications, (I think Chuck may be ahead of me), but last count I had membership in four QRP Clubs, and subscribe to another commercial QRP magazine, "Hambrew". I should join a couple more who publish. After all, you get healthy reading all year for the price of one first run movie.

Now if I missed mentioning any other QRP'ers who published this month, please forgive, but just skimmed the issues and with so much of QRP interest, wanted to get the word out while they are on the newstand, as I seem to sense there are a LOT of people who do not take ANY ham magazine full time!

72,
Stuart K5KVH

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: QLF%mimi@magic.itg.ti.com
Subject: [462] RF TOOLBOX
Message-ID: <9609260044.AA23451@itg.ti.com>

From: Brad Bradfield QLF

Subj: RF TOOLBOX

Good afternoon Dudes and Dudettes - -

Glad everyone had a great time in the test this past weekend.

I wanted to comment on something I came across when I was out perusing the QRP-L FTP site earlier today and that is RF Toolbox. This was developed as a give-away by Teledyne in 1987 and while it has not been updated since then, it is still extremely useful. I've had a copy of it for years, and use it every now and then. It can be downloaded at:

<ftp://ftp.lehigh.edu/pub/listserv/qrp-l/incoming/rftools.zip>

Haven't had time to work on the Sierra in over a week. (Have I told you how much I hate winding toroids?)

72's es 73's,

Brad, WB0CGH

Brad Bradfield, PE Electrical Design Engineer

(H) 817-321-2960
(W) 214-462-6230

Texas Instruments, Inc.

Real men talk with their fingers!

QLF@MSG.TI.COM

WB0CGH@W05H.#DFW.TX.USA.NA

ARRL Life Member QRP-L #377 SMIRK #4906 IEEE(M) ARS #72

Collector of wireless and landline Morse keys and accessories.

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: Brent Alexenko <alexenko@prairie.nodak.edu>

Subject: [439] Sierra Blues

Message-ID: <Pine.OSF.3.91.960925104445.3604A-100000@prairie.nodak.edu>

Hi folks....

While putting together my shiny candy-like Sierra, my friend and I came across something unusual. Everything went together like clockwork, not counting human error. Anyway, while installing the coax jumpers for W1 and W2, my friend (electronics major) and I (music major) found a ground (short) in W2.

...Is that supposed to be there?

He's not sure what to think, and I'm already in over my head with circuit design. I told him that I knew where the answer would be....

Any help would be appreciated. We're just trying to find out if everything is going the way it should, or if we've got big trouble staring us in the face.

Soon to be QRP in North Dakota...

Brent
KG0WE

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: adams@chuck.dallas.sgi.com (chuck adams)

Subject: [455] Solar Photos

Message-ID: <199609252220.WAA25927@chuck.dallas.sgi.com>

Gang,

For those of you who surf, you gotta go look at

<http://holly.cc.uleth.ca/solar/www/images.html>

Look at the latest Holloman Full Disk H-Alpha (Hydrogen-Alpha) Images. Is that promising or what?

SIG

Chuck Adams (K5FO CP-60) 49/49/50 adams@sgi.com

EMPS QS0s=0 STATES(w/c)=0/0 DX=0

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Doug Hendricks <ki6ds@dpol.k12.ca.us>
Subject: [448] Soldering RG174 Jumpers the K4DRD Way
Message-ID: <1.5.4.16.19960925100738.25ef449c@telis.org>

When I built my Sierra it took me 5 tries before I was successful in getting the W1 and W2 jumpers made from RG174 soldered in without a short. The recent posting about the problem has prompted me to share this with the list.

Stan Cooper, K4DRD is a master craftsman when it comes to building QRP Rigs. An example of his work is the homebrew front panel cutout for his Sierra on the front cover of the April issue of QQ. Stan helped me to install the KC-2 in my Sierra, and I watched as he demonstrated his method of soldering a RG174 jumper. Here it is.

The problem with using RG174 as a jumper is that when you solder the braid you will apply too much heat and cause it to melt right through the center insulation material and short out to the center conductor. The problem is intensified if there is any strain on the shield which is usually present when the center conductor is soldered in first.

Strip the insulation back 3/4" from the shield. Then, untwist the shield so that you can retwist it into a lead separate from the center conductor. Then, cut off the twisted shield so that you leave a piece about 1/4" long. Use a resistor lead that has been cut off, and insert it into the end of the shield. Next, place an alligator clip on the shield to act as a heat sink. This will keep the heat from traveling up the shield and melting the insulation around the center conductor. Now, solder the resistor lead to the shield, doing it as quickly as possible and using as fine a tipped soldering iron that you have. Cover with heat shrink. Strip the center insulation back about 1/4" from the center conductor. Twist and solder coat the lead. Prepare the other end of the cable the same way at this time. Now, insert the resistor lead that is connected to the shield into the pad and solder. It is important to solder the shield first, to keep the stress off the center conductor.

Next, solder the center conductor. Then, check the other end of the

RG174 for shorts. There should not be a problem if you use a small iron (15-25W) and keep the contact of the iron to the shield to a minimum. It also helps if you allow time for the joint to cool before you start soldering the next joint.

Stan, thank you for showing me a neat way to do a difficult job. I was amazed at how simple it was to do the above operation. I had a horrible time trying to work with the jumpers in my Sierra, and Stan, the master craftsman, showed me how easy it was to do. That brings up another point. Take advantage of the opportunities to watch someone else build. I have learned many shortcuts and easy to use tricks with this method. Learning is fun. (That is my business by the way!!) 72, Doug, KI6DS

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: duane <duane@flinet.com>
Subject: [470] winter field day
Message-ID: <3249FA32.1B81@flinet.com>

hey I live in Florida no such thing as winter here in south Florida.

For the temp. multiplier well I have an answer for that one....my

brother in law runs a produce packing house down here and the cooler is kept at 34 degrees I think I'll work some of the event from there (ha ha thought you guys had us Florida boys out of the picture uh)BTW i just bought an explorer II for 30 meters so I'll be stuck on that band. I may even take the air boat out to an island in Lake Okeechobee where we have a camp setup and operate from there too (portable power) may even take some pictures it really pretty. I saw the picture of the snake at one QRP site in the QRP journal maybe I'll be paid a visit by an alligator.

any ways I'll be working on the explorer II hope to have it ready in time

72 73 to all
Duane AB4BE
<http://www.flinet.com/~duane>

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Paul Stroud <aa4xx@ipass.net>
Subject: [473] WTB: Argonaut II
Message-ID: <324A0380.5D6E@ipass.net>

Hi Gang,

I'm looking for an Argo II in good condition. If any of you could beat the bushes to find one, I'd appreciate it.

72,

Paul Stroud 1318 Alderman Circle Raleigh, NC 27603
 (919) 779-1637 aa4xx@amsat.org

"Grandmothers are just antique little girls."

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Patrick Franzis <franzis@gdc.com>
Subject: [453] Yaesu FT-7
Message-ID: <Pine.SUN.3.91.960925162938.25943A-100000@esun212>

Hi All,

Does anyone use a Yaesu FT-7 for a QRP rig? I have a chance to pick one up and was wondering if it was a good rig and what they would be worth now.

Thanks, -Patrick N10CJ

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: "Michael A. Gipe" <mgipe@reliablemeters.com>
Subject: [440] Yet another 40-9er
Message-ID: <199609251600.LAA16262@multi2.pic.net>

If you're tired of hearing about 40-9ers, please press 'delete' now.

Arrived home from the airport on Sunday afternoon to find a small package from Jim Cates. (Thanks, Jim. That was fast.) Other responsibilities kept me from opening it until Monday afternoon, when I heated up my weapon, turned on the Luxo lamp, and started soldering parts into the board. I had read the thread of modifications, but figured I would start with a pretty much stock circuit first, except for one item, to be described later. Soon the moment of anticipation arrived. With slight trepidation (remember, I started out in this hobby with tubes and I've seen fire and I've seen rain, and I've been knocked on my butt by 800 volts!), I hooked up a 9 volt battery with clip leads and started probing with a scope. Lo and behold, It's oscillating! And it's at the right frequency! I quickly clipped on a 50 ohm resistor and jumpered the key input. I've got output -- 267 mw to be exact! I pulled the coax off the Icom rig and pulled it over to the 40-9er, but of course, it was three inches too short. After bumping my head under the desk, I managed to untangle the cables enough to connect my dipole to the 40-9er. I connected the battery and slipped on the headphones. Signals! QRM up the kazoo! A quick tweak of the input cap and I've got a radio! That's when family responsibilities pulled me away for several hours. When I got back to the rig, 40 meters had shut down completely, and there was no-one to be found. Sigh. I pulled out the old straight key from the closet and dusted it off. After clip-leading it to the board, I discovered that I was S9 to my IC706 without its antenna, which makes a handy, if somewhat expensive, sidetone generator. The keyed tone was surprisingly good. But with no propagation, even 267 mw won't get very far. Reluctantly, I went to bed.

The next evening, I set everything up again and connected the battery after I changed out the 22 uF audio coupling cap for a 470 uF cap. Signals were back, but, as luck would have it, everyone was busy ragchewing. I didn't hear a single CQ for 45 minutes. Finally, I heard a CQ and tried a call. It sure had been a long time since I'd used a straight key. I kept trying to push it sideways! I made many calls with no luck over the next 20 minutes. Then finally, I heard it: 'K1MG de NF0Z tnx for call' After a nice QSO with Larry in Denver, I hooked up with Jim, W7PYV, in Seattle for a nice ragchew. It works!

The way I figure it, 267 mw is about 14 db down from my daughter's night light. Ain't QRP amazin'!

Although I had the noblest intentions of starting off with an unmodified 40-9er, I confess I couldn't help myself. I read about the problems with the transmitter oscillating, and about Wayne's suggestion that coupling between the driver and PA coils might be causing it. I looked at the schematic and board layout and thought there might be a different explanation. The power to both stages is coupled to ground through a single 0.01 uF cap. I figured that this common 2+ ohm coupling path, combined with an arbitrary phase shift depending on the tolerances and placement of the particular components installed, just might lead to oscillation in some cases. The layout did not lend itself to separating these paths, so I figured I would at least parallel the 0.01 uF with a 0.1uF cap to lower the capacitive reactance. I am happy to report that I

have seen no sign of any instability in the transmitter. The other mod was to change the 22 uF audio coupling cap for a larger one. I figured 100 uF would do, but all I had was 470 uF. The 22 uF starts to roll off the low frequencies around 900 Hz when you use low impedance stereo headphones. Since the 40-9er has no transmit frequency offset, you need to be very close to audio zero beat on their signal for them to hear you when you transmit. The 470 uF permits you to work down near 100 Hz. Both of my initial QSOs were with the receiver tuned to a low frequency so my transmit signal was within a couple hundred Hz of the other guy. I do plan on putting in some kind of transmit offset, because I believe you do get better results when you zero beat the other guy exactly.

All in all, this 40-9er experience was pretty satisfying. Maybe I can reach Japan tonight....

Mike K1MG

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: "Paul R. Valko" <prvalko@Oakland.edu>
Subject: [468] Re: 80m CW: Top 10 List
Message-ID: <Pine.OSF.3.91.960925224758.2234C-1000000@vela.acs.oakland.edu>

On Wed, 25 Sep 1996 wb5gwb@sprynet.com wrote:

> As a remedy, and since I'm psyched about EMPS coming up, I'm going to try
> monitoring 80m while hacking on the PC across the room.

Well I gave up on Accounting 535 for the night and flipped the FT-900at to 3.579 (color burst freq) with 2 watts. Worked VE3BBI across the lake in Ontario. Bryce CLAIMED to be running 80mw out of a TT 509!

In the "first liar never wins" catagory, I gave him a 559 and he spanked me with a 349! Hahahahahahha those wacky Canadians, eh?

So what... EMPS didn't start yet??? Heck, I've already got one DX QSO.

73 =paul= wb8zjl (for a while)

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: Gary Surrency <gsurrenc@ix.netcom.com>
Subject: [435] Re: bare essentials xmtr
Message-ID: <3249442D.5286@ix.netcom.com>

Thomas J. Whalen wrote:

>

> Years ago when I was a Novice way back in 1968 I found an article in
> Popular Electronics called " The Bare Essentials Transmitter". The single
> 50C5 did a great job and was fun to build. Been trying to find that
> schematic for a long time. A few of us here in town built the xmtr and no
> one seems to be able to come up with a working model or plans. Tom WB5QYT

Tom,

Yeah, I built that one too, but I remember it was in Electronics Illustrated. It was on the front cover. My version was based on a 25C5 and I put it in an aluminum minibox instead of building it on a pine board with nails (actually brass brads) for tie points. I had two crystals: one for 7171 khz and the other was 7181 khz. Had a ball with it as a novice, but unfortunately I don't have it anymore or the magazine article it appeared in. Wasn't it designed by Tom Kneitel?

Brings back lots of memories of my early ham days as WN4LHU. I hope someone else on the list has or knows where we can find that information again. I think it was in 1968 too. Did you build yours with a plastic pill bottle for the tank tuned circuit. I remember it has several turns of hookup wire for the link coupled antenna output. I ran about 17.5 watts with mine, and the tube's plate would glow cherry red with long key-down. :-)

72/73,

--

Gary, AB7MY QRP-L #571 Chandler, AZ (near Phoenix)Grid Square DM43BH

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: "Thomas J. Whalen" <whalen@swcp.com>
Subject: [438] Re: bare essentials xmtr
Message-ID: <Pine.SUN.3.91.960925092952.18593E-100000@kitsune.swcp.com>

On Wed, 25 Sep 1996, Gary Surrency wrote:

> Thomas J. Whalen wrote:

> >

> > Years ago when I was a Novice way back in 1968 I found an article in
> > Popular Electronics called " The Bare Essentials Transmitter". The single

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>
> Tom,
>
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> Illustrated. It was on the front cover. My version was based on a 25C5
> and I put it in an aluminum minibox instead of building it on a pine
> board with nails (actually brass brads) for tie points. I had two
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> with a plastic pill bottle for the tank tuned circuit. I remember it
> has several turns of hookup wire for the link coupled antenna output.
> I ran about 17.5 watts with mine, and the tube's plate would glow
> cherry red with long key-down. :-)
>
> 72/73,
> --
> Gary, AB7MY QRP-L #571 Chandler, AZ (near Phoenix)Grid Square DM43BH
>
>
Hi Gary, Im pretty sure it was in Popular Electronics but my old memory
could be wrong. Hey, with all this interest we will find the article.
Mine used a pill bottle for the tank circuit and used a ne-2 for
tunup!!! I built it on a scrap piece of 1x6. Shock ville!!!! Lets keep
searching till we get the article. I know it was 1968 because I got my
novice during that year.Old call of WN5WTD 73 and 72. Tom

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: n3wxi@sgi.net
Subject: [463] Re: bare essentials xmtr
Message-ID: <199609260049.UAA14858@orion.bv.sgi.net>

At 09:35 AM 9/25/96 -0600, you wrote:
>On Wed, 25 Sep 1996, Gary Surrency wrote:
>
>> Thomas J. Whalen wrote:
>> >
>> > Years ago when I was a Novice way back in 1968 I found an article in
>> > Popular Electronics called " The Bare Essentials Transmitter". The single

>> > 50C5 did a great job and was fun to build. Been trying to find that
>> > schematic for a long time. A few of us here in town built the xmtr and no
>> > one seems to be able to come up with a working model or plans. Tom WB5QYT
>>

>> Tom,

>>

>> Yeah, I built that one too, but I remember it was in Electronics
>> Illustrated. It was on the front cover. My version was based on a 25C5
>> and I put it in an aluminum minibox instead of building it on a pine
>> board with nails (actually brass brads) for tie points. I had two
>> crystals: one for 7171 khz and the other was 7181 khz. Had a ball with
>> it as a novice, but unfortunately I don't have it anymore or the magazine
>> article it appeared in. Wasn't it designed by Tom Kneitel?

>>

>> Brings back lots of memories of my early ham days as WN4LHU.
>> I hope someone else on the list has or knows where we can find that
>> information again. I think it was in 1968 too. Did you build yours
>> with a plastic pill bottle for the tank tuned circuit. I remember it
>> has several turns of hookup wire for the link coupled antenna output.
>> I ran about 17.5 watts with mine, and the tube's plate would glow
>> cherry red with long key-down. :-)

>>

>> 72/73,

>> --

>> Gary, AB7MY QRP-L #571 Chandler, AZ (near Phoenix)Grid Square DM43BH

>>

>>

>Hi Gary, Im pretty sure it was in Popular Electronics but my old memory
>could be wrong. Hey, with all this interest we will find the article.
>Mine used a pill bottle for the tank circuit and used a ne-2 for
>tunup!!! I built it on a scrap piece of 1x6. Shock ville!!!! Lets keep
>searching till we get the article. I know it was 1968 because I got my
>novice during that year.Old call of WN5WTD 73 and 72. Tom

>

>

Hey guys, great memories! I too was a novice in 1968 (WN3KOB).
My first transmitter was a 6AQ5 crystal oscillator. If you can find
a 1971 handbook, check page 151 figure C. Thats the circuit. That
circuit uses a triode and the 6AQ5 is a pentode but the screen grid
was connected to the plate and the supressor grid is internally connected
to the cathode so it operated as a triode. The "rig" was cathode keyed,
with a straight key of course. Got myself across the key terminal posts
a couple of times while tuning the rcvr. Really got your attention.
At the time I worked in the TV shop of a large department store and these
tubes were used on all of their B&W tv's. They had a bad habit of becoming
microphonic so I managed to collect quite a few of them. Good thing because
they didn't last long (red plate syndrome). If I held the key down and
tapped the tube with my finger my buddies said they could hear the micro-

phonics in their receivers. One friend suggested I hold a megaphone next to the tube and shout at it with the key down and work some FM. Wern't many FM rigs at that time so didn't try it, but who knows it might have worked.

Let's see, I think I still have some of those tubes somewhere. Gotta build a 250v power supply andHMMMMMMMM.

73.....George (N3WXI)

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>

Subject: [459] Re: feed line question

Message-ID: <Pine.SOL.3.94.960925200936.10013C-100000@utkux4.utcc.utk.edu>

On Wed, 25 Sep 1996, Bob Hirsch wrote:

> What are the advantages, disadvantages, of using 300 ohm as compard to 450
> ohm, or for that matter what about the 72 ohm balaced feed line? All
> disertations, questions, and comments are welcome.

Essentially, there are no distinct advantages to 300 -ohm line over 450 ohm line. The one exception is an antenna with a 300 ohm feedpoint impedance using 300-ohm line as a matched line.

Most applications will use 450-ohm line as a mismatched line with low losses. Since the most common varieties of 450 ohm line have holes in the insulating separator, it is less prone to impedance changes in rain storms, ice storms, etc. It uses large conductors for good power handling capabilities (not especially relevant to QRP work). Its solid conductors require some care in attaching at the antenna to prevent the back and forth stress that will break the conductor.

For light weight field work, 300-ohm line is just fine for a multiband antenna. There are also "waxes" for feedline that will shed water and reduce the impedance shift. The solid dielectric give the 300-ohm line a velocity factor of about .8 whereas the perforated 450-ohm line has a VF of .9 to .95.

Both make good emergency antennas, either dipoles or folded dipoles. When too old and worn for ham work, I have used lengths of either for binding boards, logs, and straw for easier carrying. The solid wires in scrap 450-ohm line make good hook-up wire for various purposes. The 450-ohm line is a bit easier to handle for making open and shorted stubs. There are VHF j-pole antennas that use 300-ohm line.

Be careful not to use shielded 300-ohm twinlead for ham work. And use a quality version of 300-ohm twinlead--there are some mighty cheap and

cheaply made versions of dubious impedance and mechanical strength.

End result: pick the line that suits your purpose and is available.

-73-

LB, W4RNL

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: lee@radioadv.com (Lee Richey)
Subject: [465] Re: Foxhunt update es 80M
Message-ID: <19960926011759149.AAA224@lee.radioadv.com>

> From: chuck adams <adams@chuck.dallas.sgi.com>
> ---- 80M ----
> Some of you love and have a lot of experience on 80M. I'd
> like to hear of your experiences, dos and don'ts,
> Most QRPers during the sunspot lulls operate on 40M. There
> must be some real dyed in the wool 80M operators out there.

I don't have a lot of do's and don'ts. I just get on and operate.
Most of my activity is around 3688 'cause I have a few xtals
there and my TX is crystal controlled. BTW, I use a RAC R1
W1AW direct conversion RX modified for tunable operation
between 3550 and 3700. The TX is crystal control with about
one watt output. The whole lash-up is full break-in and quite
smooth.

I generally get reports of 569 thru 589 around the northeastern
US. I live in NW Pennsylvania. I don't even say anything about
being QRP. Just give my power as one watt home brew and ant
as modified windom. (It's approx 256 feet off-center fed)

One of my greatest contacts was with a chap in Sudbury, Ont.
When I told him I was running 1 watt, he responded with some-
thing like "say agn ur pwr"? I said "one watt one watt". His
response "wow one watt wow one watt wow -- i never heard a
one watt signal before wow".

That was great. I don't know if we got another QRP operator or
not but it sure was fun that night.

I'm not what you would call a dyed in the wool 80M operator but I think it is safe to say I've had more 80 meter QRP contacts on 80 than any other band. Yep, I do like the band!

-Lee- -WA3FIY-

<http://www.radioadv.com>

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Luke Enriquez <ecsclfe@lux.latrobe.edu.au>
Subject: [426] Re: Ground for vertical
Message-ID: <9609250955.AA12891@lux.latrobe.edu.au>

>

> Anyway, Luke, food for thought.

>

Thanks for your comments Bob. The problem, I'm only 22 and still living at home. Anything that I put up must be parent compatible! Burying a number of ground radials is out of the question. Elevating them is also out of the question. However, if I could use the roof of the garage as the ground plane, it would look less "messy" to the folks, and from what I have read, should provide a reasonable antenna efficiency.

At the moment, with two ground radials, the antenna is theoretically 25 % efficient. Many Small radials is better than a few (ie : 10 large radials). I don't know how the sides of the garage will effect the equation, as they are galvanized steel as well. Maybe I could place a coil between the braid and the garage roof?

Regards,
Luke

--

Luke Enriquez VK3DLE "I only cook with Non-violent
3rd Year Electronic Engineering fruit that pulps itself."
Latrobe University, Victoria, Australia.
ecsclfe@lux.latrobe.edu.au

--

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996

From: "Claton Cadmus" <aplitech@spacestar.com>
Subject: [432] Re: Ground for vertical
Message-ID: <199609251335.IAA05167@Spacestar.Net>

Luke Enriquez VK3DLE wrote about his vertical antenna:

> At the moment, with two ground radials, the antenna is theoretically
> 25 % efficient.

The efficiency of your antenna is not determined by the number of radials. If your installation is good your efficiency will be quite high. More radials simply lowers you angle of radiation and puts more of your energy in a preferred direction, i.e. the horizon. (Less cloud warming. :-))

Verticals working against a single ground rod can be quite effective, especially if you have good soil conditions. Everyone would like to have the best possible antenna for every situation. Few of us can do that. We just do the best we can.

If you don't have one already, I suggest you get a good antenna book. You might find an antenna design that will fit you needs better.

Good luck,

Claton Cadmus |73 de KA0GKC
Application Technologies Inc. |ARRL, QRP-ARCI, NorCal
Ph. (612)926-8886 |ARCC, MNQRP&HB Society
Fax (612)926-8545 |ka0gkc@ka0gkc.ampr.org
E-mail cla@spacestar.com |ka0gkc@wb0gdb.#stp.mn.us

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Steve Hideg <Steve.Hideg.1@nd.edu>
Subject: [446] Re: Kanga US Homepage ?
Message-ID: <v03007806ae6f1ae8e80a@[129.74.35.16]>

>Been trying for 2 days to connect to the Kanga Homepage.

>

>

>I have <http://ncc1701-d.cc.nd.edu/kanga/>

>as the URL.

>

>

>Tnx, Stan , N6ULU

all spark energy, the energy decreases with frequency increases, hence, the quieter high bands. There is little difference in the reception of propagated spark energy between vertical and horizontal energy, since the polarization is lost in the skip refraction. Narrow-banding the pre-receiver reception system can reduce the total energy from such signals that reaches the receiver front end. Loop antennas have no ends: hence, for a portion of the incoming energy, there is a reduction in the amount of energy coupled to the antenna from wire-end capacitance. (At the extreme, the development of the quad loop was to solve HCJB's end coupling problem with its Yagis: at high altitudes, the energy coupling was burning the ends off the antenna elements.) It is doubtful that a folded dipole yields much improvement over a single wire dipole, since its ends are almost as pointed and current is low while voltage is high at the ends. Larger loops, where the high voltage region is distributed across a wire length with no point are more effective, whether vertical or horizontal.

3. Mixing products: The cure for mixing products begins by locating where the mixing occurs. If the mixing occurs in the receiver, then filtration of the unwanted frequency (or frequency range) is the best solution. If the mixing occurs externally to anything one's receiving and antenna system can control, then there is no cure immediately at hand. However, such problems often involve violations of technical standards by one or both of the signal generators involved as the sources of the mix, and patient bureaucratic pressure can sometimes alleviate the problem. If the mixing occurs within one's antenna system, then there is usually something wrong with the system--bad connections, unwanted couplings, less than optimal tuning set-ups: all of these are correctible and should be part of one's routine periodic maintenance on the antenna system.

These are not all the noise sources. Power company equipment problems have been well covered in previous postings: locate and keep on reporting until you get action, and hope there is a ham on the technical staff that handles such complaints. RFI from light dimmers and other products using AC waveform chopping to control a voltage level have been noted in many articles and require location and individual cure. Likewise with noise from computer timing circuits.

Finally, some folks are condemned to live in areas where noise is beyond control and even beyond the ability of the best noise blanker to handle. The solution, short of illegally de-powering these sources, is to save money and move to a quiet location--or to concentrate on portable operation. During the energy crisis of the 70s, when we lost the TV instant-on feature that cost pennies to run but doubled the lifetime of picture tube filaments in the interests of saving energy, bill boards remained lit all night as necessities to business--in my area, they were the only lights on city stretches of interstate. This experience should provide a realistic estimate of the overall degree of likely cooperation

in alleviating human-made noises from inefficient or improperly operating equipment or devices by business and industry.

However, antenna choice, feed system choice, noise cancellers, and noise blankers can go a long way toward reducing currently unlivable noise to a mere constant irritation.

-73-

LB, W4RNL

From owner-qrp-l@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: [431] Re: Low-noise antennas?
Message-ID: <199609251312.NAA23104@chuck.dallas.sgi.com>

LB's posting on noise is very good. Thanks again LB for your continued contributions.

When I was in Silver Spring MD last week I had the SWL-40 and the dipole with me and assorted support equipment to operate from the room. But alas, that was not to be. The Courtyard Marriott decided in it's infinite wisdom to use the halo shaped florescent lamps, you know the ones - cheap, efficient, etc. They are also the worst source of RFI I have ever seen. The FM clock radio had 30+/9 noise between stations from the lamps.

I started out just fine when I got there. Third floor room on the end overlooking a large parking lot with large trees to string the antenna to..... Even had a small balcony to go out on and get fresh air. Then there was also a sodium vapor lamp in the parking lot that was power cycling all night every night. Murphy was definitely in residence at the hotel. He only stays at hotels where you can open the window or have a balcony.

dit dit

SIG

Chuck Adams (K5FO CP-60) 49/49/50 adams@sgi.com
EMPS QS0s=0 STATES(w/c)=0/0 DX=0

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: bfollett@ditell.com
Subject: [436] Re: Low-noise antennas?
Message-ID: <199609251520.JAA19310@orion.ditell.com>

Hi Jay:

<<Also, does anyone have remarks on allband 2-30 MHz antenna and tuner designs which would help in the "noise" situations above- as well as help in a "noisy" receive location 300 feet away from some nasty HV power lines? DC ground the balun in the tuner? Use a closed loop instead of a G5RV or Center-fed Zepp antenna?>>

I certainly can't add to LB's response on the antenna issues, HOWEVER,

If you are suffering from local HV noise, there is clearly one, superior answer: A Phasing Noise Canceller. There is only one commercial unit on the market today, and that's the JPS ANC 4.

I own one, can attest that you can null out computer noise (my main use), powerline noise, and other very-local stuff. Doug Demaw did an extensive article about the ANC 4 a while back, I forget where, and his testing reported up to 40db reduction of powerline noise if you got the sensor antenna relatively close to the noise source. Same with dimmer switches, etc. The only real limitation is when your neighbor is creating the RFI, and you can't get a sensor wire close enough to the noise source.

Since the unit goes in front of your receiver, your front end doesn't have to deal with the trash you are trying to filter out. -- a preselector in the extreme.

One downside to the unit. It does have a turnaround time on xmit to receive that is too slow for fast QSK. I understand that it can be modified to be faster, however. Its rated to handle 200watts though :-)

Cost is approximately \$175 list.

The usual disclaimers, I own one, sing its praises, but have no connection with JPS.

73, Bob

Bob Follett WA7FCU, QRP-L # 129, NorCal, ARCI, 10-10, ARS
2861 Estates Dr. VOICE: 801.649.6457
Park City, UT 84060 E-mail: bfollett.ditell.com

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Paul Harden <pharden@aoc.nrao.edu>
Subject: [437] Re: Low-noise antennas?
Message-ID: <199609251527.JAA08326@zia.aoc.nrao.edu>

Not too long ago, it seems half the western US tripped off line and was without power for an hour or so. I had the good fortune to be in a QSO with my QRP rig on 40M, always floating on the NiCads, when that happened. My shack went black with the rest of the town, but of course the rig remained on. What was so striking to me was HOW QUIET 40M SUDDENLY BECAME. Not from signals going away, but the overall noise level. It makes you realize how much of that noise is this huge continuum energy of man-made origin from neon signs to air conditioners from one coast to the other.

L.B.'s finger pointing at antenna noise being largely due to various sources of man-made noise is RIGHT ON. (Of course when it comes to antennas, LB usually is). The next time the power goes out in your town ... turn on 40M and become a believer.

72, Paul NA5N

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: "Kelly Ellison" <kelman@dialnet.net>
Subject: [427] Re: MFJ-9040 For Sale!
Message-ID: <199609251127.GAA18031@shell.dialnet.net>

> From: Kelly Ellison <kelman@dialnet.net>
> To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
> Subject: MFJ-9040 For Sale!
> Date: Monday, September 23, 1996 11:28 AM
>
> For Sale:
>
> MFJ-9040 CW QRP rig. Manual, DC cord & box.
>
> \$100.00 Shipped COD UPS.
>
> Kelly Ellison - WB0WQS
> kelman@dialnet.net

>

The MFJ -9040 is gone.
Thank you all for the inquiries.

73 - Kelly Ellison - WB0WQS

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: herr@ridgecrest.ca.us (Michael Herr)
Subject: [422] Re>QRP & tubes
Message-ID: <v01530500ae6f444d9ccc@[199.120.150.40]>

>Is anyone else using TUBES to generate their QRP signals???
>Bry, AF4K

Yep, sure am! I have a single tube (3A4) oscillator / transmitter and stack of 9 volt batteries on 80 and 40. Using a 3 tube Heath Kit receiver (regen of coarse) It's a ball!

72

Mike WA6ARA

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: Ed Tanton N4XY <n4xy@avana.net>
Subject: [451] Re: Soldering RG174 Jumpers the K4DRD Way
Message-ID: <3249821B.6A40@avana.net>

Doug... Another alternative on mini-RF (or audio) cables is to watch the surplus market (mail order and hamfest) for teflon cables. Usually they are even silver plated mil-spec and will not short when soldered no matter how hot your iron. I threw away ALL other kinds of mini shielded cable(s) years ago after a similar bad experience-and that was after being as quick and careful as I could be...still a short with regular '174. I have bought small lengths wherever I could ever since of the teflon kind and have never once had a problem with cable melt.

There are connectors available from Digikey that will allow you to properly terminate a cable with an attached ground wire. These are beautiful but @ \$1+ per connector somewhat expensive. If

anyone wants the part numbers
I'll be glad to provide them.

--

Ed Tanton N4XY (770) 971-0436 Marietta, GA
email: n4xy@avana.net URL: Coming Soon

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: "David D. Meacham" <ddm@datatamers.com>
Subject: [454] Re: Soldering RG174 Jumpers the K4DRD Way
Message-ID: <Pine.LNX.3.91.960925132720.15080B-100000@dt1.datatamers.com>

Doug/Gang,

Another frequent problem encountered when using RG-174 is that a single piece of braid wire (very small diameter) gets bent or broken in such a position as to short to the center-conductor joint. This type of short is very hard to detect unless you use some sort of magnifying lens to inspect your cable ends.

Another "trick" comes to mind for those cases when you want to "float" the braid at one end of the cable to avoid a ground loop (the Cascade is an example). Just trim the braid very close to the end of the jacket, using nail scissors. Then use heat-shrink tubing to cover some of the jacket and a tiny bit of the dielectric (shrink it on with heat from a butane-lighter flame). The dielectric should extend beyond the shrunken tubing about 3/16-inch, and the tinned, twisted center conductor exposed beyond that. At this point you are ready to solder the center conductor into the PCB pad.

72, Dave, W6EMD

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: duane <duane@flinet.com>
Subject: [471] Re: winter field day
Message-ID: <3249FC31.386F@flinet.com>

why arn't the WARC Bands allowed in the winter field day contest ?
can anyone answer that question ? I bought a 30 meter qrp kit (oh boy)
are all contest this way no warc bands ? if so looks like i bought the
wrong kit...(ah crud)
duane

From owner-qrp-1@Lehigh.EDU Wed Sep 25 23:13:06 1996
From: "Michael A. Gipe" <mgipe@reliablemeters.com>
Subject: [457] Re: Yet another 40-9er
Message-ID: <199609252326.SAA28589@multi2.pic.net>

> From: Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>
> To: mgipe@reliablemeters.com
> Subject: Re: Yet another 40-9er
> Date: Wednesday, September 25, 1996 9:29 AM
>
> Mike,
> Congrats on your success with the 40-9er. Your observation above has
> always made me shake my head in amazement. How can we communicate with
> such
> little power? Think of how bright that nightlight would be a few hundred
> miles
> away.
> I love to imagine what I'd see if my eyes had their best electromagnetic
> sensitivity in the H.F. region. Think of the panorama we'd see in the
> night
> sky when the ionosphere is doing its thing!

Blinded by the light...

Newsflash: Another amateur radio operator was tragically injured today when he looked directly at a DXer's yagi ... This brings the casualty count to 745 for this year alone.... Concerned citizens are calling on Congress to pass legislation to protect foolish people from taking part in what is becoming an increasingly dangerous pastime: amateur radio.... Public leaders are appealing to all citizens to limit their amateur radio operation to QRP.... In other news today.....

Mike K1MG